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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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John M. Curran

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EXAMINER

HEWITT, JAMES M

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/613,539	Applicant(s) CURRAN, JOHN M.	
	Examiner JAMES M. HEWITT	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, 13-23 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munday (US 4,653,782) in view of Lochridge (US 3,603,617), and further in view of O'Connor (US 2,779,375).

As is evident from the figures and col. 1, ll. 35 – col. 2, ll. 29, Munday discloses the claimed invention as set forth in claims 1-29, except for the retention means. Munday discloses a pipe repair clamp comprising two identical halves, gasket means (12) and securing means (10, 11) including nuts and bolts. Munday states that his clamp can be used to join pipes of slightly varying external diameters. Munday employs washers on one end of the bolts (10) on one side of the lugs (6, 7). Lochridge teaches a pipe coupling assembly with securing means that includes nuts, washers and bolts. Lochridge employ washers (31, 32) on each end of the bolts as is known in order to better distribute the load at each end of the bolts. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Munday to employ an additional washer at the head end of the bolts as taught by

Lochridge in order to better distribute the load at each end of the bolts.

Munday/Lochridge fail to teach that the washers are split lock washers, which act to effectively retain the bolts to the clamp halves. O'Connor teaches such a washer (see Figure 4 and col. 2, ll. 31-49); one that is used to temporarily retain bolts in an assembled relationship until they are finally joined in the finished product. O'Connor's split washer also permits lateral positioning of the washer on a bolt or screw. In view of O'Connor's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ split lock washers in Munday/Lochridge in order to temporarily retain the clamping bolts in an assembled relationship with the clamp halves until they are finally joined and to permit lateral positioning of the washers on the bolts.

O'Connor's washer is considered resilient at least to a degree as it is a relatively thin, split metal washer. Also refer to Figs. 5 and 6. Furthermore, if O'Connor's washer was not resilient to a degree, it would not function as intended. The term "very stiff" does not preclude resilience.

As to the requirement that the screws are *loosely* retained, the term "loose" is a relative term. And Munday's screws are considered loosely retained in their respective screw holes because they are not and can not be interference fit in their holes in order for Munday's device to function properly. Munday's screws are considered to be loosely retained in the screw holes at least to a degree.

As to claims 10 and 22, it would have been an obvious matter of design choice to make the washers square since it has been held that changing the shape of a device only involves routine skill in the art.

As to claim 11 and 23, it would have been an obvious matter of design choice to make the internal opening substantially polygonal since it has been held that changing the shape of a device only involves routine skill in the art.

Claims 12 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munday (US 4,653,782) in view Lochridge (US 3,603,617) and O'Connor (US 2,779,375), and further in view of Crowther (US 1,874,462).

The combination of Munday, Lochridge and O'Connor fails to teach adhesion means for adhesion to the bolts. Crowther teaches securing a lock washer against a bolt head by means of an adhesive in order to effectively secure the washer in a fixed position upon the bolt. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Munday/Lochridge/O'Connor and secure the washers against the bolt heads via adhesive as taught by Crowther in order to effectively secure the washers in a fixed position upon the bolts.

Response to Arguments

Applicant's arguments filed 12/4/07 have been fully considered but they are not persuasive.

On page 10, Applicant asserts that the Office Action fails to identify why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed. In response, it is unclear as to which rejection(s) Applicant refers. Nevertheless, in each of the above rejections, a motivation statement is provided.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to Applicant's assertions in the third paragraph on page 12 and in the first two full paragraphs on page 13, to restate from above:

O'Connor's washer is considered resilient at least to a degree as it is a relatively thin, split metal washer. Also, note Figs. 5 and 6. Furthermore, if O'Connor's washer was not resilient to a degree, it would not function as intended.

As to the requirement that the screws are loosely retained, the term "loose" is a relative term. And Munday's screws are considered loosely retained in their respective screw holes because they are not and can not be interference fit in their holes in order for Munday's device to function properly. Munday's screws are considered to be loosely retained in the screw holes at least to a degree.

In response to Applicant's assertion that it would make no sense to change O'Connor's circular orifices to any shape but round as they must snugly fit on round screws, then how must those washers having polygonal orifices work with the round screws of the instant invention? It should be appreciated that the skilled artisan would

select a washer with a properly dimensioned polygonal orifice that would be compatible and function as intended with the given round screw.

Applicant's assertion that combining four patents to read on the claims is suggestive of the invalidity of the rejection is only conjecture.

In response to Applicant's assertion that there is no basis in reason or fact to provide adhesion means for O'Connor's washers for securing the washer against a bolthead since the washer fit snugly and are "very stiff", the fact that the washers fit snugly and are stiff does not preclude employing means to ensure that separation is prevented. Crowther is evidence of this. Crowther's lock washer fits snug (Fig. 3) and is relatively stiff. Crowther employs adhesion means in order to effectively secure the washer in a fixed position upon the bolt.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES M. HEWITT whose telephone number is (571)272-7084.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James M Hewitt/
Primary Examiner, Art Unit 3679